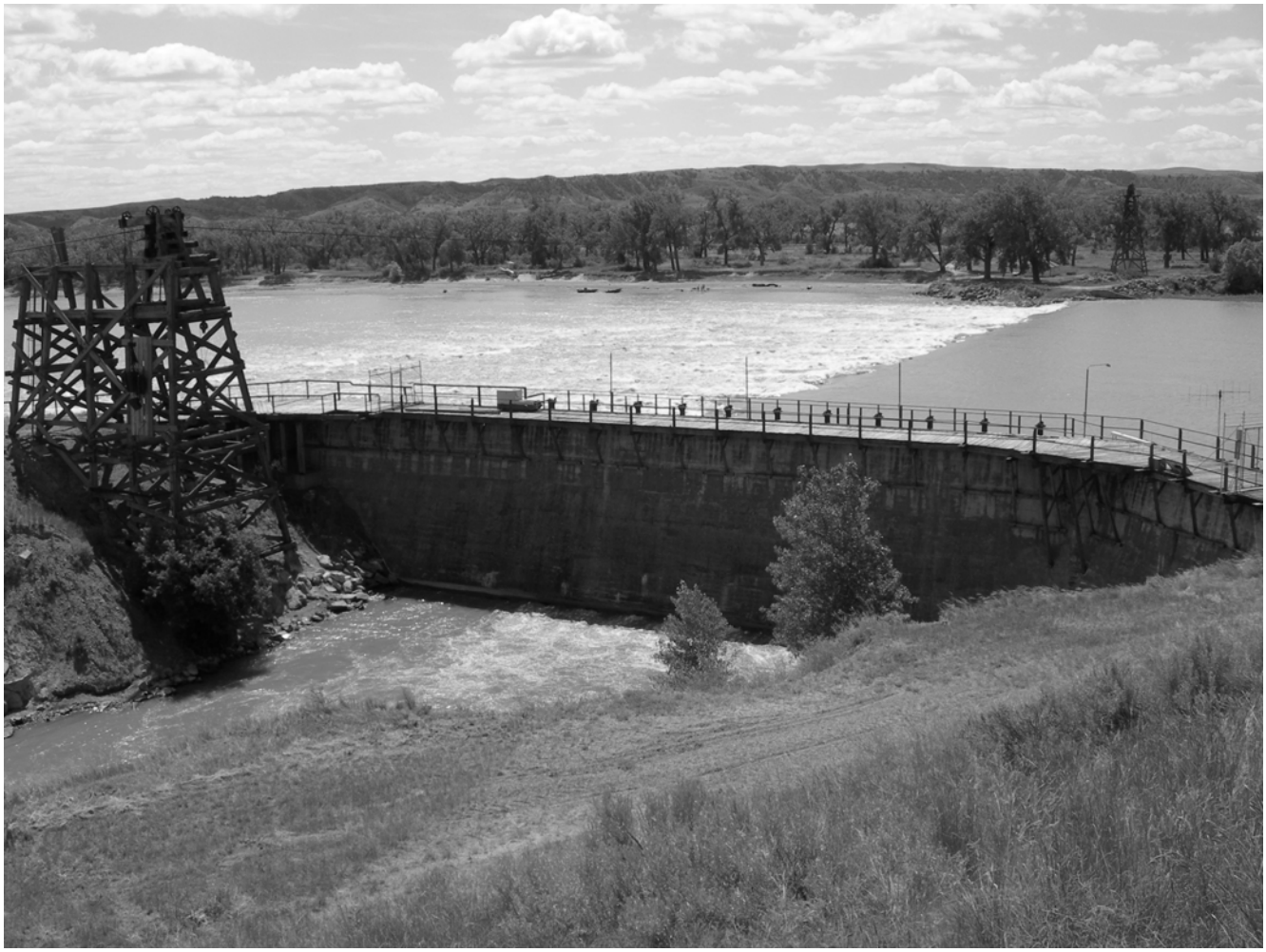
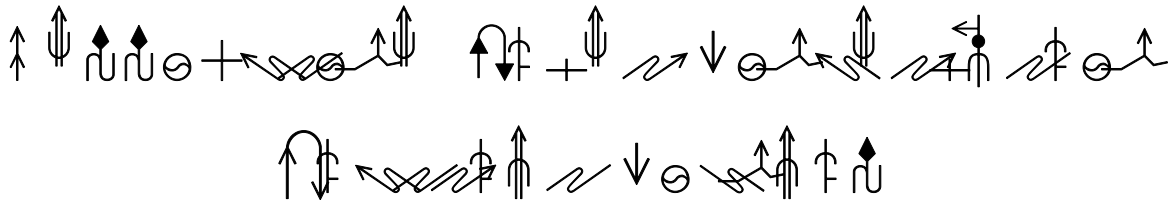
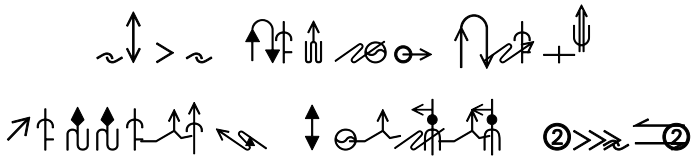
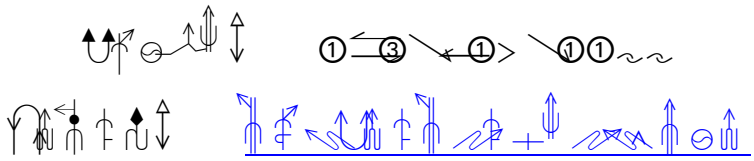
Yellowstone River Conservation District Council

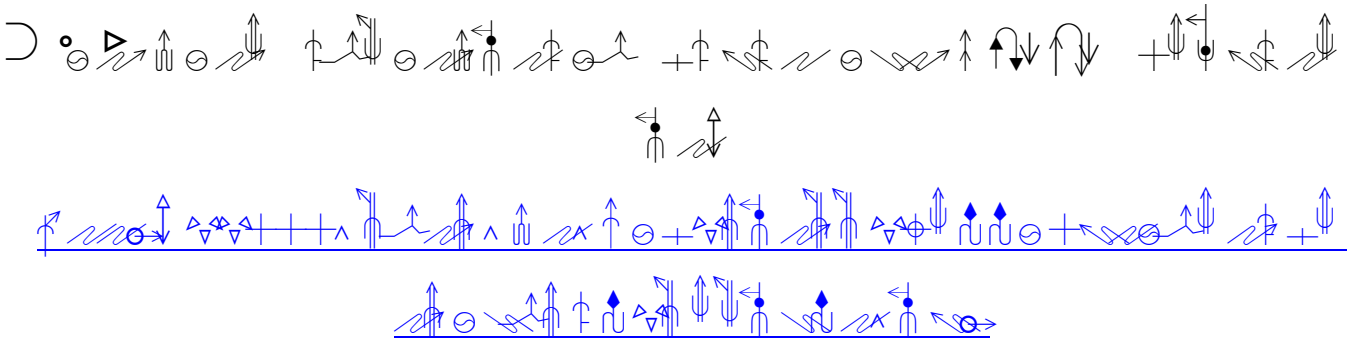


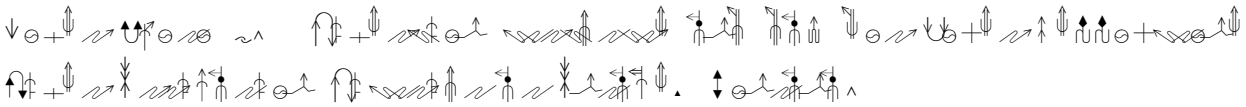
Annual Report
2006

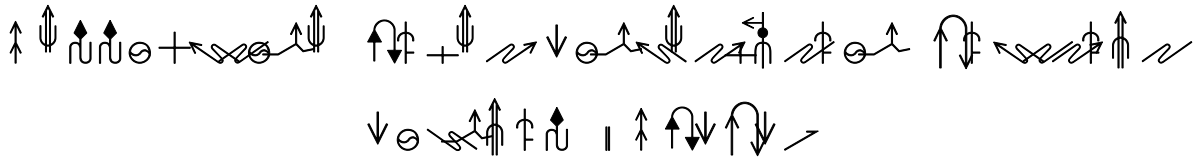


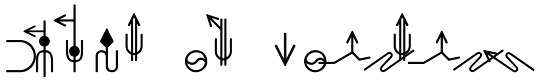












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Council Conservation District Members:

Carbon County
Will Alexander

Custer County
Walter Rolf

Dawson County
Kenny Nemitz

Park County
Daryl Stutterheim

Prairie County
Dave Schwarz

Richland County
Tony Barone

Rosebud County
Don Youngbauer

Stillwater County
Steve Story

Sweet Grass County
Paul Gilbert

Treasure County
Phil Fox

Yellowstone County
Bob Hector

MACD
Luther Waterland

McKenzie County, ND
Orvin Finsaas

RAC Chair
John Moorhouse

Greetings:

On behalf of the Council, and all of those who have assisted with the Yellowstone River Conservation District Council (YRCDC), we are pleased to present this 2006 Annual Report.

Our Mission statement says "the Council's purpose is to provide local leadership, assistance, and guidance for the wise use and conservation of the Yellowstone River Corridor's natural resources to sustain and improve social, environmental, and economic values."

The Coordinator, Dave Schwarz, states that "the YRCDC acknowledges the importance of partnerships which have developed since its inception." In my opinion, the strength of this Council is the result of cooperation between all of the key personnel found on page 7 and 8 of this report.

All agree the professional agency members of the TAC, diverse membership of the RAC, and the Council members themselves, that there must be an end product (voluntary management practices) and data collection must be focused toward that end.

The Conservation Districts have done a remarkable job in communicating with private landowners and citizens comprising the communities along the Yellowstone River. Since over 80% of the land along the Yellowstone River is privately owned, it is of utmost importance that the landowners be involved and communicated with if "Voluntary Management Practices" are to be effectively implemented. The studies to date have been successful because of this unique local relationship. Results of these studies can be viewed on our web page at:

http://www.dnrc.mt.gov/cardd/yellowstonerivercouncil/default.asp.

With funding being tenuous, the Council and its partners have taken that challenge as an opportunity to employ creative thinking to further focus our data collection efforts. The Council looks forward to the challenges of 2007 and jointly providing answers with our partners.

Sincerely,

Paul Gilbert
Chairman
YRCDC

Yellowstone River Conservation District Council

2006 Annual Report

The 2006 Annual Report is the second prepared by the Yellowstone River Conservation District Council (YRCDC). Its purpose is to provide the general public, state, and federal agencies with an update on the 2006 fiscal year's activities and accomplishments. The report will also present the scopes of work planned for FY2007.

The focus of this report is threefold: 1) to summarize the data collection efforts in ongoing scopes of work; 2) provide insight into next year's work plan; and 3) give an overview of the YRCDC's financial health. More detailed information on specific scopes of work and final reports can be accessed at **http://nris.mt.gov/yellowstone/**. In addition to narrative reports – maps, tables, and GIS files may be viewed or downloaded. Most files are in Adobe format; however, some require Arc Explorer or Arc View for access.

YRCDC History, Purpose, and Authority

The 676-mile Yellowstone River (Yellowstone) is the largest tributary to the Missouri River, draining 70,000 square miles of land in Montana, North Dakota, and Wyoming. Its mean annual discharge is 12,747 cfs, about 55 percent of the Missouri's total water volume at the confluence. About half of the land area ultimately drained by the Yellowstone watershed lies in Wyoming while the Yellowstone River itself is contained almost entirely within Montana.

As a national resource, the Yellowstone is without parallel. The river originates in the nation's first national park, and remains the longest free-flowing river in the lower 48 states. It supports valuable aquatic and terrestrial species and natural communities. In addition to its ecological importance and scenic beauty, the Yellowstone supports a variety of agricultural, domestic, industrial, and recreational uses. These uses are of great economic and social importance, both to the nation, and the people who live along the river.

Increasingly, the Yellowstone has been the focus of growing ecological, economic, social, and political concerns. The 1996-1997 floods, which caused extensive erosion and sedimentation along some channel segments, brought focus on human intervention within the river channel. During this same time period, the National Heritage Rivers initiative wanted to place a federal "river navigator" who would oversee all activities on the Yellowstone River. People perceived this as a departure from local control of resources to federal control. As a result it was not received well.

Environmental and recreational interest was elevated regarding the long-term sustainability of the river as a public resource. A lawsuit filed in Federal District Court. As a result of the law suit, the court ordered the Corps of Engineers to review potential cumulative effects of projects submitted for 404 permit review. In response, Congress authorized the Cumulative Effects Study of the biological, hydrologic, and economics of the entire Yellowstone River in the 1999 Water Resources Development Act (WRDA).

In 1998, the eleven conservation districts bordering the Yellowstone River began meeting. In 1999 the Yellowstone River Conservation District Council was established and began meeting on a regular basis.

The purpose of the YRCDC is to provide local leadership, assistance, and guidance for the wise use and conservation of the Yellowstone River system's natural resources to sustain and improve the social, environmental, and economic values. The purpose is founded on the following fundamental precepts: 1) the need for sound scientific information on which to base management decisions; 2) the need for

broad-based local, regional, and national input, to define a shared vision that will provide a foundation for resolving issues; 3) the need for technical and financial assistance to address sustainable use issues on the Yellowstone River; 4) the need to establish constructive dialog with all users and stakeholders; and 5) the need to educate and inform the public to create a vision for the future of the river.

The YRCDC has focused on the following points which are central to the conservation districts bordering the Yellowstone River and vital to all its stakeholders: 1) bank stabilization (310 issues); 2) irrigation water impacts, availability, and water reservations; 3) livestock, grazing, and farming issues; 4) water quality and stream impairment; 5) recreational uses of the river and the floodplain; 6) municipal and domestic water needs and impacts; 7) scenic and aesthetic values of the river corridor.

Conservation districts are political subdivisions of state government with full power and authority to participate in issues relating to soil and water conservation. Conservation districts are specifically given authority under 76-15-101 through 76-15-810.

The specific statute which authorizes cooperation among conservation districts is 76-15-318 which states "the supervisors of any two or more districts organized under the provisions of this chapter may cooperate with one another in the exercise of any or all powers conferred in this chapter."

Limitations on efforts are found in 76-15-401(2) which states "In order to avoid duplication of research activities, no district shall initiate any research program except in cooperation with the government of this state or any of its agencies or with the United States or any of its agencies."

In 2004 the YRCDC signed a cost share agreement, with the Corps of Engineers, to carry out a cumulative impacts study to be funded 75% federal and 25% local.

YRCDC Membership and Protocol

Initially, the YRCDC consisted of the eleven conservation districts which border the Yellowstone River in Montana and a representative from the Montana Association of Conservation Districts (MACD). Later, McKenzie County in North Dakota was added as a voting member and in early 2006 the chair of the Resource Advisory Committee (RAC) was added as a voting member.

The YRCDC elects a chair and vice chair each from opposite ends of the river (upper and lower). Elections take place in July to coincide with the fiscal year.

Business is conducted by consensus whenever possible. If a minority (one or two) are opposed to a particular action, a formal motion

Photo 2. Chair Paul Gilbert leads a discussion at the June, 2006, YRCDC meeting.

and vote will ensue. If the vote is split or close to split, the subject is tabled until more discussion and compromise can be employed.

Being elected officials, conservation district members are well suited to represent their county constituencies in matters related to the Yellowstone River. Their interest is in representing all stakeholders equally along the river corridor.

Key Personnel

Yellowstone River Conservation District Council

Paul Gilbert, Chairman, Sweet Grass County

Steve Story, Stillwater County

Bob Hector, Yellowstone County

Don Youngbauer, Rosebud County

Dave Schwarz, Prairie County

Tony Barone, Richland County

Luther Waterland, MACD Representative

Daryl Stutterheim, Park County

Will Alexander, Carbon County

Phil Fox, Treasure County

Walter Rolf, Custer County

Kenny Nemitz, Dawson County

Orvin Finsaas, McKenzie County, ND

John Moorhouse, RAC Chair

Technical Advisory Committee Members

Warren Kellogg, Chairman, NRCS

Karin Boyd, Applied Geomorphology, Inc.

Jim Robinson, MT DNRC Water Resources

Susan Gilbertz, Prof of Geography, MSU-B

George Jordan, USF&WS

Dan Nebel, TerraCon

John Kilpatrick, USGS

Brent Esplin, Bureau of Reclamation

Scott Rickard, Director, Applied Economic Research, MSU-B

Resource Advisory Committee Members

John Moorhouse, Landowner, Chairman

Tom Asay, Landowner

Bill Kennedy, Yellowstone County Com

Boris Krizek, City of Billings Water Treatment

Marilyn Wade, Public at Large

Richard Cayko, McKenzie County Com

Burt Williams, The Nature Conservancy

Scott Bosse, Greater Yellowstone Coalition

Kelly Duryea, BNSF

Mack Cole, Landowner

Roger Muggli, Landowner

Dale Vermillion, Landowner

Lou Grosskop, Landowner

Art Gehnert, Landowner

John Franklin, 1st Bank President/CEO

Yellowstone River Conservation District Council Staff

David Schwarz, Interim Coordinator **Kelly Gilbertson, Project Assistant**

Carol Watts, Custer County Conservation District Administrator

US Army Corps of Engineers Team

Greg Johnson, Project Manager **Dave Brandon, Chief, Plans Formulation**

Dick Rappe, Program Manager **Norma Jean Schrader, Program Analyst**

Ralph Roza, Planning **Jon Kragt, Chief, Surveys/Mapping Section**

Ty Sabin, Survey/Mapping Specialist **Doug Clemetson, Chief, Hydrology Section**

Roger Kay, Hydrologic Engineer **Jeff McClenathan, Chief, Hydraulic Section**

Kevin Adams, Hydraulic Engineer **John Remus, Chief, Channel Stabilization**

John Garrison, Geomorphologist **Candace Gorton, Chief, Economic/Environ.**

Eric Laux, Lead Biologist **Gene Sturm, Lead Economist**

Kara Reeves, Economist **Mary Lee Johns, Native American Consultant**

Other Agency Personnel/Advisors

Laurie Zeller, Montana Department of Natural Resources and Conservation
Peter Ismert, U.S. Environmental Protection Agency
David Pratt, Natural Resource Conservation Service
Scott Bockness, Yellowstone County Weed Control District
Dustin Baker, Hysham Enterprises
Mike Volesky, Natural Resources Policy Advisor, Governor's Office

Congressional Delegation Advisors

Senator Baucus' office, Liz Ching, State Casework Manager
Senator Burns' office, Sharon Pearson, Billings Field Representative
Congressman Rehberg's office, Randy Vogel, State Director

Cumulative Effects Study Authority, Purpose and Scope

Study Authority

The Cumulative Effects Study was authorized by Section 431 of the Water Resources Development Act of 1999. The Act called for the U.S. Army Corps of Engineers to conduct a study to determine the hydrologic, biological, and socio-economic cumulative impacts on the Yellowstone River from Gardiner, Montana, to the confluence with the Missouri River. The Act required consultation with the U.S. Fish and Wildlife Service, U.S. Geological Survey, Natural Resources Conservation Service, and Montana, tribal, and local entities. The results were to be reported to Congress within 5 years of enactment; however, the lack of federal funding has impeded the study progress.

Project Management Plan and Feasibility Study

The 2003 Feasibility Study[1] Report (a blueprint for how the federally-mandated cumulative effects study will be conducted) for the Yellowstone River recommended a cumulative effects study for the river corridor to address important hydrologic, socio-economic, and biological issues. These were beyond the capability of state and local interests to resolve, given the existing circumstances, conflicts, and complexity regarding water and related land resource issues in the two-state, multi-county region. The Feasibility Study Report was approved by the U.S. Army Corps of Engineers (Corps) Headquarters on August 13, 2003.

Through a number of public meetings sponsored by the conservation districts along the Yellowstone River, information regarding the need to proceed with the cumulative effects study was provided by local landowners, interested environmental and industry groups, as well as a variety of federal, state, and local agencies. The analysis of the information gathered indicated the study should proceed with a goal of comprehensive analysis of past, present, and likely future impacts. The end result should be recommendations that will enable local, state, and federal interests to manage the sustainable use of the Yellowstone River's resources.

A Project Management Plan (PMP) was developed jointly by the Corps and the Yellowstone River Conservation District Council (YRCDC) and its partners. This plan of work defines the scope and conduct of the cumulative effects study. Specifically, it covers study authority, organization, the scope of the study, schedule, communication, change control, quality control, contracting, budgets, financial monitoring, and auditing.

The cost of the cumulative effects study is estimated to be $5.8 million. The cumulative effects study report will provide a complete presentation of the study analysis and results. It will document compliance with all applicable federal, state, and local statutes, executive orders, and policies. This end product (report) may be ultimately used by Congress if additional studies or federally authorized and funded projects are recommended. The YRCDC intends to use the information to develop voluntary management practices (VMPs) for use by conservation districts, federal and state agencies, and the State of Montana.

In 2004, the Custer County Conservation District, on behalf of the YRCDC, entered into a $5.8 million cost-share agreement with the Corps of Engineers to complete the study. This agreement incorporates the work outlined in the PMP and provides that costs will be shared on a 75% federal, 25% local basis. As mentioned earlier in the report, federal financial support has been lacking, impeding project progress; however, overwhelming financial, technical, and political support has come from federal

agencies in Montana, state and local agencies, local landowners, and interest groups.

Study Area Congressional Districts

The study area extends along the Yellowstone River valley from Gardiner, Montana, at the northern boundary of Yellowstone National Park, to its confluence with the Missouri River in McKenzie County, North Dakota. Montana's Congressional delegation is made up of Senators Max Baucus and Conrad Burns and Representative Dennis Rehberg. North Dakota's Congressional delegation is made up of Senators Kent Conrad and Byron Dorgan, and Representative Earl Pomeroy.

Approach to Cumulative Effects Study

Study area goals and objectives were identified by the Corps through consultation with YRCDC and its constituent conservation districts and cooperation with federal and state agencies and local interests in the Yellowstone area. General goals include anticipating and planning for future hazards, disasters, and needs; applying new information as it becomes available; and maintaining focus on issues and concerns along the river's main-stem. In addition, relevant information and data needs to be gathered to develop voluntary management practices (VMPs) for future river management.

Goals to be addressed in the study are listed below. Specific tasks following the goals are part of the PMP.

- Developing a Geographic Information System (GIS) computer data base for the Yellowstone River corridor that can be used by agencies and special interest groups to support ongoing programs and missions. Major task groupings include:

- Conducting hydrologic, hydraulic, geomorphic, and biological baseline studies to better understand the functioning of the fluvial and ecological dynamics of the river;

    - posting interim and final results of mapping efforts and studies on the Montana State Library, Natural Resource Information System (NRIS) Yellowstone River Corridor web page to make them available to agencies, and special interest groups;
    - conducting socio-economic and land use baseline studies to develop information on river demands, preferences, and effects of various user groups; and
    - defining gaps in technical knowledge and conduct studies of river uses to determine future levels of sustainability.

- Conducting cumulative assessment and trend studies to better understand how the infrastructure (including bank stabilization, bridges, and other man-made structures) interacts with the existing river channel structure and functions.

- Completing studies and produce technical reports on hydrology, hydraulics, geomorphology, water quality, biological resources**,** socio-economics, and other areas as needed.

- Examining and analyzing measures for river management that improve the projected future condition including:

    - developing a river-focused voluntary management practices manual,

    - utilizing existing programs for planning and incentive–based strategies to more efficiently

conserve resources and encourage wise development to:

  - sustain agriculture, fish and wildlife resources,
  - adapt infrastructure to better maintain proper river function; and
  - restore aquatic and wetland habitats.

- Involving federal and state agencies, local entities, stakeholders, members of Congress, and citizens in the study process including:
  - open meetings, special public meetings, tours of sites, media notices, and draft reports.

- Completing a feasibility report and making it available to agencies and the public by posting the report, all appendices, and study products on the Yellowstone River Corridor resource page on the Montana Natural Resource Information System (NRIS) web site and on the YRCDC web site: http://www.dnrc.mt.gov/cardd/yellowstonerivercouncil/default.asp

Status of Component Studies

In FY2006 there were four studies which had component tasks performed toward the cumulative effects study.

1. *HISTORIC AERIAL PHOTO ACQUISITION*
2. *AVIAN STUDY*
3. *SOCIO-ECONOMIC STUDY*
4. *YELLOWSTONE RIVER HAZARD CORRIDOR DEVELOPMENT*
5. *HISTORICAL RECORDS ANALYSIS*
6. *BRIDGE SURVEY*
7. *ONE TIME ONLY FUNDING*

1. HISTORIC AERIAL PHOTO ACQUISITION AND DISTRIBUTION

Principal Investigator: Jim Robinson
Water Resources Division
Montana Department of Natural Resources and Conservation

Other Participants: US Army Corps of Engineers,

Goal: Acquire historic aerial photographs of the Yellowstone River corridor to support cumulative effects assessment, 310 and 404 permit review, and land use planning.

Completion Date: Ongoing

Product: County-wide, historic orthophoto mosaics of the Yellowstone River Corridor from 1950, 1977, and 2000.

Since its inception in 1999, the Council has collected and made available through the Montana State Library's Natural Resource Information System (NRIS) a variety of geographic datasets specific to the Yellowstone River corridor, including historic aerial photography, high accuracy digital elevation models, and digitized plan metric feature datasets, such as a physical features inventory and geomorphic classification of the entire river (http://nris.mt.gov/yellowstone). Currently, complete aerial photographic coverage exists of the river corridor from Yellowstone National Park Boundary to the Missouri River confluence near three points in time: 1950/1976/2000; and sporadic coverage dating back to the 1930s. The photography will be used by the technical components of the cumulative effects assessment to characterize and evaluate past response to influences such as climate, hydro modification, and flood and erosion control structures.

2. Avian Study

2A. Pilot Study of Avian Communities of the Middle and Lower Yellowstone River

Principal Investigators: Danielle Jones
Andrew Hansen
Montana State University
Bozeman, Montana

Other Participants: Nature Conservancy, US Army Corps of Engineers, Yellowstone River corridor landowners, county conservation districts.

Goal: Provide a general description of breeding bird communities and to explore the factors possibly influencing the distribution and abundance of bird species along the length of the river.

Completion Date: February 15, 2006

Product: ***Avian Communities of the Middle and Lower Yellowstone River: A Pilot Study***

This pilot study has provided basic information about the distribution of riparian bird species and communities and riparian habitats along the river with field work completed during the summer of 2005. Due to the preliminary nature of the study, interpretation of the results should not extend beyond this context. A somewhat opportunistic, rather than random, sampling scheme introduces potential biases that may influence patterns of bird distribution. Similarly, unequal sampling efforts and small sample sizes across habitats and ecoregions may cause results to reflect local patterns in bird communities, and inhibit inference to Yellowstone bird populations in general. However, this pilot effort will be extremely useful for the planning of the future, more comprehensive bird study. Patterns in bird and vegetation distribution identified during this study will help to formulate specific research questions and refine study design details for that future study.

This pilot study has also provided crucial information about the logistics associated with conducting bird surveys along the river. The data collected will allow for the evaluation of minimum sizes needed in the future to collect sufficient data for addressing particular questions, while also providing insight about logistical considerations for achieving those sample goals. Additionally, logistics associated with conducting bird surveys on private lands can be very complicated, and this study has identified potential challenges which will help to plan and prepare for gaining access to private lands in a timely manner in the future. Furthermore, conducting a "trial run" of surveys along 475 miles of river has provided invaluable insight about to effectively sample such a large study area. In sum, information and knowledge gained from this study will substantially improve the efficiency of the future study, allowing for more data, and the right kind of data, to be collected for addressing questions about the potential cumulative impacts of human activities on riparian birds of the Yellowstone River.

2B. Avian Communities of the Middle and Lower Yellowstone River

Principal Investigators: Danielle Jones
Andrew Hansen
Montana State University
Bozeman, Montana

Other Participants: Nature Conservancy, US Army Corps of Engineers, Yellowstone River corridor landowners, county conservation districts.

Goal: Provide a general description of breeding bird communities and to explore the factors possibly influencing the distribution and abundance of bird species along the length of the river.

Completion Date: Ongoing

Product: In progress

The field work for the second year of the avian study began in May of 2006 and will be completed by the middle of July. A final product is expected by the end of FY2007.

3. Socio-Economic Study

3A. Pilot Study of Cultural Values Along the Yellowstone River

Principal Investigators: Dr. Susan Gilbertz
Dr. Micheal Vickery (Alma College)
Montana State University
Billings, Montana

Other Participants: US Army Corps of Engineers, Yellowstone River corridor landowners, county conservation districts.

Goal: Document the variety and intensity of different perspectives and values held by people living along the Yellowstone River.

Completion Date: May, 2006

Product: ***Exploring Cultural Values Along the Yellowstone River: A Pilot Study***

During May of 2005, twenty interviews were conducted of people living within the Yellowstone River surrounding Miles City, Billings, and Livingston.

Open-ended questions were asked as a means of encouraging the residents to talk about the river, the local environs, and their personal observations and concerns in their own words. All respondents were interested in talking about their perspectives, and they represented a variety of views of the river, including: farming, ranching, agricultural science, commercial development, recreation, civic infrastructure, environmental activism, historical views, and entrepreneurial interests. Special attention was paid to the ways in which the residents from diverse geographical settings and diverse interest groups view management practices and plans as they relate to the river as a shared resource. A primary objective of the project is to document the arguments put forth so as to understand how, when given the opportunity, people do go about explaining their perspectives regarding Yellowstone River issues.

The immediate value of the pilot study reported here is its illustrative purpose. With so few interviews, the findings are interesting and thought provoking, but not truly functional as research findings. These limitations could easily be addressed in a larger study.

3B. Study of Cultural Values Along the Yellowstone River

Principal Investigators: Dr. Susan Gilbertz
Montana State University
Billings, Montana

Other Participants: US Army Corps of Engineers, Yellowstone River corridor landowners, county conservation districts.

Goal: Document the variety and intensity of different perspectives and values held by people living along the Yellowstone River.

Completion Date: Ongoing

Product: In Progress

The cultural values study began in May of 2006 and is ongoing as of this writing. To date, over 250 interviews have been conducted by the research team.

4. YELLOWSTONE RIVER GEOMORPHIC HAZARD MAPPING

Principal Investigators: Karin Boyd
Tony Thatcher
DTM Consulting/Applied Geomorphology
Bozeman, Montana

Other Participants: Floodplain administrators, county conservation districts, other county representatives.

Goal: Develop a geomorphic-based hazard designation for the Yellowstone River from the southern Park County line to the Missouri River.

Completion Date: Ongoing

Product: Project data CD and series of county-level maps that designate the Yellowstone River floodplain according to its potential for flooding and channel movement.

The Council approved this scope of work during the June 2006 meeting. Due to the high cost, floodplain mapping along the Yellowstone River is either nonexistent or roughly approximated. This lack of information makes it difficult to proactively manage the floodplain, particularly along the more rapidly developing upper segment (e.g., upstream of the Big Horn River). Using a variety of previously developed datasets, including historic aerial photography and digital elevation data, the Geomorphic Hazard Mapping Project will identify segments of the Yellowstone floodplain at risk of flooding and excessive erosion. The goal is to interpret past and current channel conditions in order to predict future channel behavior and identify areas at risk of rapid channel movement and/or flooding.

The mapping will be conducted on a river corridor scale and is intended to provide a screening level tool for purposes of river corridor management, especially in areas where detailed floodplain mapping is financially unfeasible. The results can be potentially adopted as Enhanced Zone A flood boundaries and used to determine whether development interests should be required to perform detailed flood studies or channel migration zone evaluation prior to development.

5. HISTORICAL RECORDS ANALYSIS

Principal Investigators: Joan L. Brownell

Other Participants: County conservation districts, NRCS, US Army Corps of Engineers

Goal: Develop a preliminary evaluation of historic records that describe the Yellowstone

River valley to determine their informational potential on the extent and/or composition of vegetation in the riparian area.

Completion Date: June 2006

Product: Report indicating potential of 19th century information sources and a cost estimate for development of that information on the Yellowstone River.

The YRCDC approved a contract in May of 2006 with Joan L. Brownell to conduct a preliminary analysis of historic records and provide an opinion as to the usefulness in evaluating riparian areas adjacent to the Yellowstone River prior to the 19th century.

Ms. Brownell's conclusion was there was no known nineteenth century historic document that provides precise extent and composition of riparian vegetation along the Yellowstone River corridor. It was her opinion that there were two primary avenues of further study that present the best options for a vegetative study of the Yellowstone River during the nineteen century. The GLO (General Land Office) survey maps and field notes, even though inconsistent, are the best available source of information on vegetation for the riparian area of the Yellowstone River. The Northern Pacific Railroad Company survey records available at the Minnesota Historical Society are a wealth of information pertaining to surveys and investigations throughout the Yellowstone River Valley and whose maps and notes reflect the vegetation within the riparian corridor of the Yellowstone. A third option is to also investigate the development of the Maguire map of the Yellowstone and locate the original report and accompanying field notes and/or maps. The Council, through its technical advisory committee, is analyzing whether further study is needed.

6. BRIDGE SURVEY

Principal Investigators: Peter McCarthy
USGS
1728 Lampman Dr., Ste D
Billings, Montana 59102

Other Participants: USGS**,** county conservation districts, US Army Corps of Engineers

Goal: To survey critical parameters of existing bridges spanning the Yellowstone River for use in the US Army Corps of Engineers hydraulic model.

Completion Date: Ongoing

Product: In Progress

The bridge survey has been completed to the confluence of the Bighorn River with the Yellowstone River. The purpose is to assess a number of parameters such as bridge openings, location of the channel bottom, pier shapes, abutment types, flood levels if available (such as the 1996, 1997 floods), whether rip rap is present or not, and the height of the bridge deck (top and bottom). The water level upstream and downstream of the bridge is surveyed. This is critical information for the US Army Corps of Engineers to produce an accurate hydraulic model of the river.

The past two years there have been adequate funds to complete between six and eight bridge surveys per year. Information collected to date will allow the US Army Corps of Engineers to complete the hydraulic modeling to the mouth of the Bighorn River.

7. ONE TIME ONLY FUNDING

Principal Investigators: Laurie Zeller
DNRC-CARDD
PO Box 201601
1625 Eleventh Avenue
Helena, Montana 59620-1601

Other Participants: YRCDC, Park County CD, Sweet Grass County CD, Yellowstone County CD, Richland County CD, TAC.

Goal: To present to DNRC a list of potential projects on the Yellowstone River recommended for funding one time only.

Completion Date: Ongoing

Product: In Progress

The Conservation District Bureau solicited project ideas from conservation districts along the Yellowstone River that could be funded with the available one time only funding approved during the last legislative session. Conservation districts were not required to submit full-blown proposals at this point, but were asked for project ideas and an estimated cost. The Yellowstone River Conservation District Council reviewed the following project ideas. Even though all of the projects submitted to the Council received support from the Council's RAC and TAC, Project Number 1, the Pryor Creek fish barrier removal project was the Council's first priority. Project Number 2, the demonstration of alternative bank stabilization techniques was the second priority. The other projects are listed in no priority order.

1. Pryor Creek Fish Barrier Removal. This fish barrier on Prior Creek, just upstream from its confluence with the Yellowstone River, is part of the Huntley Irrigation District's conveyance system. The eleven foot drop results from a canal that runs under Pryor Creek. Eliminating the fish barrier would open up miles of important habitat for Sauger and other fish species. A feasibility/cost study needs to be done to determine the best alternative for eliminating the fish barrier and maintaining the integrity of the conveyance system either by routing irrigation water over or under Pryor Creek. **An estimate of $10,000 is needed for the feasibility/cost study. ($10,000 was approved and is under contract.)**

2. Modified Alternative Bank Stabilization Demonstration. The COE conceived the bendway weir concept as an alternative bank stabilization method in 1988. A bendway weir consists of a radius, made of hard material, placed in a river upstream about 15-20 degrees, causing deflection of water flow to the center of the stream. The bendway weir is a proven alternative to rock riprap for bank stabilization in most areas. However, due to the expense and lack of availability of materials in eastern Montana, this method is not a preferred alternative of most landowners. The CD and the RC&D have devised a concept that warrants investigation. If

involves installing a weir from the uplands by pushing manufactured material similar to a guard rail toward the river bank. There would be little or no need to do any work in the actual river bed. From the river, the completed project would appear to the average river user like a natural river riffle. Funding would be to search for suitable materials, develop construction methods, and demonstrate the project on the Yellowstone River. **An estimate of $15,000 is needed for this demonstration project. ($15,000 was approved and is under contract.)**

3. Locke Creek Fish Passage. Concrete culvert under the railroad creates a partial barrier to fish passage. Locke Creek is a Yellowstone cutthroat trout spawning stream where a water lease is in place. With a few minor modifications, we can facilitate fish passage. **Estimated costs: $3,000 for materials and labor. ($3,000 was approved and is under contract).**

4. Debris Removal on Yellowstone River. A truck rear-end near the Highway 89/10 bridge is creating a floating hazard. Would require a crane or large wrecker to remove. **Estimated costs: $1,000**. **($1,000 was approved and is under contract.)**

5. Cottonwood Reestablishment Project. This project would demonstrate the benefits associated with Cottonwood stand reestablishment in riparian areas experiencing high mortality along the upper stretches of the Yellowstone River. Three planting methods would be demonstrated and the CD would sponsor workshops, tours, and monitor the success of the project. **Estimated costs: $9,000. ($9,000 was approved and is under contract.)**

6. Weed control along the Yellowstone River and mapping of Salt Cedar. This project includes spraying, grazing, and bio-control of weeds along the Yellowstone River in Sweet Grass County. The project also includes inventorying and mapping of Salt Cedar in that county as well, with the idea to get a good handle on this weed before it spreads. **Estimated cost: $5,200. ($5,200 was approved and is under contract.)**

FINANCIAL STATEMENT

In FY2006, the YRCDC decided that a more aggressive approach would be taken in regard to pursuing funding from relevant grant sources. The TAC has done outstanding work in this area and applications are in process at the time of the writing of this report.

Costs continue to rise resulting in the YRCDC requesting an additional $80,000 of pass-through funds for FY2007. This would allow for an increased coordinator salary, attracting more highly qualified applicants. That request has been approved by the DNRC Director.

At the time this report was prepared, the Senate has $1,000,000 in their budget for federal fiscal year 2007. The House has $250,000 in their budget. Funding is critical to continuing the cumulative effects study in a logical and timely manner.

The first spreadsheet following this page is a financial statement which depicts the expenditures for FY2006 regarding the pass-through money from DNRC.

The YRCDC is currently administrating funds from several different grant sources. The page following the financial statement is an accounting of each outstanding grant, funds expended, and funds remaining.

Yellowstone River Conservation District Council

Budget Report 2006

	Amount
Carryover from 2005	**$31,794.76**
Income	
Grant Administration Fees	$6,000.00
Grants	$54,000.00
Miscellaneous	$290.00
Total Income	**$60,290.00**
Expense	
Total Contracted Services	$11,215.33
Total Equipment Purchase	$129.00
Total Office Supplies	$863.10
Total Gross Wages	$41,214.07
Total Payroll Taxes	$2,895.23
Total Postage	$792.96
Total Tours/Workshop Expense	$81.97
Total Travel / Meeting Expenses	$28,893.10
Total Grant Administration Fees	$6,000.00
Total Expense	**$92,084.76**

End of Year Grant Statement
June 30, 2006

State Grants	Category	Amount	Total Grant Amount	Total Expended	Total Remaining
310 funds 2	Administration Fees	$775.04			
expires 8- 28-06	Contract services	$6,864.97	**$15,650.01**	**$7,640.01**	**$8,010.00**
DNRC 2002-2003	Pass Through grant	$140,300.00	**$140,300.00**	**$140,300.00**	**$0.00**
DNRC 2004-2005	Administration Fees	$12,010.00			
	travel/edu/workshop exp.	$18,120.85			
	office supplies/ printing (incl maps)	$5,402.78			
	postage	$448.51			
	payroll/ ins/empl cont/work comp	$84,223.64			
	credit from jury and Intuit {-105.78}	-$105.78	**$120,205.78**	**$120,205.78**	**$0.00**
DNRC Pass Through	Administrative Fees	$6,000.00			
2006 - 2007	Payroll / liabilities / employer cont/wcomp	$20,275.35			
expires 6-30-07	postage/ phone cards	$751.01			
	office supplies/ printing	$527.13			
	travel/ interim coordinator	$25,257.18			
	meeting expense / maps for LOM	$44.00			
	contract services/ audit	$7,145.33			
	Advertisement		**$120,000.00**	**$60,000.00**	**$60,000.00**
RDGP-01	Administrative Fees	$18,746.94	$299,977.00		
expires 7-15-06	Digital Cameras/ Orthophotos/ photos	$15,696.36			
	Payroll	$7,618.15			
	postage	$92.68			
	contract services	$442,278.34			
Counties	grant money deposit		$210,000.00		
			$509,977.00	**$484,432.47**	**$25,544.53**
RDGP 05			**$299,965.00**	**$0.00**	**$299,965.00**
30W-04-212	administrative Fees	$850.00			
	contract services	$8,483.00	**$9,333.00**	**$9,333.00**	**$0.00**
30W-04-219	travel, wages,admin	$1,374.00	**$1,374.00**	**$1,374.00**	**$0.00**
30W-05-238	logo, display, admin	$6,562.98	**$9,985.00**	**$6,562.98**	**$3,422.02**
expires 5-30-07					
	Current State Funds Received to Date		**$1,226,789.79**		
	Current State Funds Spent to Date			**$829,848.24**	
	Current State Funds Remaining to Date				**$396,941.55**
Federal Grants	**Category**	**Amount**	**Total Grant Amount**	**Total Expended**	**Total Remaining**
NRCS	Rapid Aerial Assessment	$10,171.90			
no exp. date	Admin fee	$1,500.00			
	Supplies/ postage	$516.62			
	Wages	$2,140.40			
	Other- jet boat	$450.00			
	MACD (Income) 1,411.63 / 333.00				
	Park CD (Income) $1,000.00		**$17,744.63**	**$14,778.92**	**$2,965.71**
LEP	Administrative Fees	$1,850.00			
	contract services	$16,650.00	**$18,500.00**	**$18,500.00**	**$0.00**
EPA-RGI	Administrative Fees	$3,256.00			
expires 9-30-2006	Travel/Registration	$13,450.92			
	Contract Services	$4,500.00			
	Postage/Printing	$342.00			
	Payroll	$6,369.60			
	Office Set Up	$3,365.55	**$37,000.00**	**$31,284.07**	**$5,715.93**
319 Grant	Administration Fees	$7,859.30			
expires 3-07	Contract Services	$116,322.97			
	workshop	$600.00	**$132,000.00**	**$124,782.27**	**$7,217.73**
USFWS	Administration Fees	$1,090.91			
	NRIS data entry	$10,909.09	**$12,000.00**	**$12,000.00**	**$0.00**
	Current Federal Funds Received		**$217,244.63**		
	Current Federal Spent to Date			**$201,345.26**	
	Current Federal Funds Remaining				**$15,899.37**
Other Grants	**Category**	**Amount**	**Total Grant Amount**	**Total Expended**	**Total Remaining**
BBCTU	Admin	$885.00			
no exp date	contract services	$0.00	**$8,850.00**	**$885.00**	**$7,965.00**
	Total All Funds Received		**$1,452,884.42**		
	Total All Funds Spent to Date			**$1,032,078.50**	
	Total All Funds Available				**$420,805.92**

PARTNERSHIPS AND IN-KIND CONTRIBUTIONS

The YRCDC acknowledges the importance of partnerships which have been developed since its inception. The study area covered is immense with many diverse groups having interests in topics specific to certain portions of the river. This undertaking is truly a ground roots effort with representation from every county along the river and virtually every special interest group.

Early on it was agreed that we could disagree. From that point relationships have grown and the YRCDC is very concerned with representing all points of view on the river. These relationships not only include diverse groups, but many agencies (some of which are regulatory) and academics who have committed to the locally led effort.

When undertaking a study of this magnitude, it is necessary to understand the social relationships that determine how the efforts will be accepted. By having the conservation districts involved in each county, the effort takes on a local flavor with landowners being approached by other landowners and people in their community they have known for an extended period. The feedback is honest and straight-forward making the acceptance of the end product, voluntary management practices, a much more realistic goal. Without the cooperation of the landowners, very little could be accomplished as 80% of the lands along the Yellowstone River are privately owned.

Our partners include the following:

Montana Department of Natural Resources and Conservation (DNRC) – DNRC CARDD (Ray Beck and Laurie Zeller) was instrumental in the formation of the YRCDC. They provided the technical, financial, and staff support that was required to bring the council together. They continue to provide outstanding staff support and are responsible for the $60,000 in pass-through funds for the YRCDC's operation expenses.

The water resources division has also been very active providing a geo-hydrologist very early after the YRCDC was formed. Jim Robinson has continued in that capacity and is a valued member of the TAC.

US Army Corps of Engineers – As discussed earlier, the Corps of Engineers (COE) was thrust into the position of having to conduct a cumulative effects study as ordered by federal district court. Since the conservation districts also are responsible for administering the 310 permits in Montana (in addition to the COE's 404 permits), they felt the need to be involved. As a result, the YRCDC and the COE signed a cost share agreement

Members of the COE's staff serve on the TAC, as principal investigators, and in an advisory capacity to the YRCDC. The majority of the federal funds for the cumulative effects study are channeled through the COE's budget.

Natural Resources Conservation Service (NRCS) – NRCS has been a major contributor of funds and staff time toward various projects on the Yellowstone River. They have provided infrared photography for the entire river corridor for land use identification and have provided Warren Kellogg who serves as the appointed chair of the TAC. The resources of NRCS were made available to the

YRCDC during its initial start-up phase and they played a key role in assisting the formation of the council.

Montana Department of Environmental Quality (DEQ) – Montana DEQ has a seat on the TAC and has provided grant funds to the YRCDC. EPA funds have also been made available through the DEQ for start-up. They continue to be a valued technical source.

US Fish and Wildlife Service (USFWS) – USFWS is another federal agency which has been involved with the YRCDC since the very beginning. They currently have a representative on the TAC and have been actively involved in matters concerning fish passage and other fish related issues. Additionally, they have taken an active role in advising the YRCDC in other matters as well.

United States Geological Survey (USGS) – The USGS sits in an advisory capacity on the TAC and is currently involved in doing bridge surveys for the COE. This information is then used for hydraulic modeling by the COE.

Yellowstone River Conservation Forum (Forum) – The Forum is a network of 23 confirmed member conservation and recreation groups with ties to the Yellowstone River. They have a seat on the RAC and continue to be very involved in the YRCDC's work.

The Forum supported the YRCDC early and assisted in drafting the original standing rules, goals, and vision of the council. They have been a partner since the beginning and their input has been greatly appreciated.

Federal Emergency Management Agency (FEMA) – FEMA has provided input on the TAC and provided funds for floodplain mapping in four counties (Park, Stillwater, Yellowstone, and Dawson) in which LiDAR information has been collected. They continue to play an active role in the YRCDC's projects.

Montana Natural Heritage Program (MNHP) – The MNHP has submitted grants on behalf of the YRCDC and has provided advice in several different areas of interest, particularly wetlands. They have done surveys in the Flathead and upper Yellowstone watershed documenting wetlands.

The YRCDC has insisted that the studies conducted have meaning and contain information which contributes to the formulation of voluntary management practices, the end goal. Gap analysis has been completed on the available literature to insure there is no duplication of effort. All the partners involved have agreed to this approach.

State and Local In-kind and Match

The YRCDC has established many partnerships from which considerable in-kind contributions are made by individuals, agencies, and organizations. These vary from private interest groups to ranchers and farmers who have graciously given of their time and talents.

This is a grass roots locally led effort to make voluntary management recommendations to constituents of a huge watershed. It is only possible through the cooperation and collaboration of the many interests throughout the watershed and the ready sharing of resources and information. Since the lands

along the Yellowstone River are over 80% privately owned, it is paramount that the YRCDC have the cooperation of those landowners.

Significant contributions have been made by these partners and the following table summarizes their efforts in that regard.

State/Local Match for Federal Cost Share Agreement

	Federal FY 04	Federal FY 05	Federal FY 06
DNRC WRD time, travel	$16,752	$28,157	
DNRC CARDD time, travel	$16,422	$14,393	
Council, other state and local agencies, private interest groups time	$63,460	$93,250	
Watershed Planning (riparian study by NRCS)	0	$60,000	0
Grants DNRC – Pass Through DNRC – RDGP DNRC – Counties DNRC – 310 MACD – LEP DNRC – WPA 1 DNRC – WPA 2 Trout Unlimited	$489,521	$303,959	$60,050
Nature Conservancy		$25,000	
NRIS – Overhead			$5,033
DNRC – 310 permit data collection	$5,000	0	0
Rent – donated by DNRC $296/ month	$2,664	$3,552	$3,552
Vehicle Use – donated by DNRC	$663	$2,737	
Meeting Room – donated by MSU Billings	$630	$1,120	
Totals	**$595,111**	**$504,431**	

Note: Since the cost share agreement is with the COE, a federal agency, the state and local match is calculated on the federal fiscal year ending in September of each year.

FISCAL YEAR 2007

The amount of work which can be accomplished is largely dependent upon the amount of the federal allocation by Congress. At this time the Senate has $1,000,000 in their version of the budget while the House has $250,000. Without a significant contribution by the federal government, it is not possible to collect the LiDAR data on those remaining counties. Without that information it is not possible to move forward on the hydraulics, geomorphology, and floodplain mapping.